

# PATENT COOPERATION TREATY

From the  
INTERNATIONAL SEARCHING AUTHORITY

To:  
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## PCT

WRITTEN OPINION OF THE  
INTERNATIONAL SEARCHING AUTHORITY

(PCT Rule 43bis.1)

Date of mailing (day/month/year) **28 FEB 2005**

Applicant's or agent's file reference

HAND0003P

**FOR FURTHER ACTION**

See paragraph 2 below

International application No.

PCT/US04/32296

International filing date (day/month/year)

29 September 2004 (29.09.2004)

Priority date (day/month/year)

29 September 2003 (29.09.2003)

International Patent Classification (IPC) or both national classification and IPC

IPC(7): H04N 7/12 and US Cl.: 375/240.15, 240.2, 240.25, 240.27, 240.28, 240.29; 348/453, 515, 596, 729; 704/500; 380/239

Applicant

HANDHELD ENTERTAINMENT, INC.

1. This opinion contains indications relating to the following items:

- ☒ Box No. I Basis of the opinion
- ☐ Box No. II Priority
- ☐ Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- ☒ Box No. IV Lack of unity of invention
- ☒ Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- ☐ Box No. VI Certain documents cited
- ☐ Box No. VII Certain defects in the international application
- ☐ Box No. VIII Certain observations on the international application

### 2. FURTHER ACTION

If a demand for international preliminary examination is made, this opinion will be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA") except that this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has notified the International Bureau under Rule 66.1bis(b) that written opinions of this International Searching Authority will not be so considered.

If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to the IPEA a written reply together, where appropriate, with amendments, before the expiration of 3 months from the date of mailing of Form PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later.

For further options, see Form PCT/ISA/220.

3. For further details, see notes to Form PCT/ISA/220.

Name and mailing address of the ISA/ US

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Commissioner for Patents  
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Form PCT/ISA/237 (cover sheet) (January 2004)

**WRITTEN OPINION OF THE  
INTERNATIONAL SEARCHING AUTHORITY**

International application No.

PCT/US04/32296

**Box No. I Basis of this opinion**

1. With regard to the language, this opinion has been established on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.

☐ This opinion has been established on the basis of a translation from the original language into the following language \_\_\_\_\_, which is the language of a translation furnished for the purposes of international search (under Rules 12.3 and 23.1(b)).

2. With regard to any nucleotide and/or amino acid sequence disclosed in the international application and necessary to the claimed invention, this opinion has been established on the basis of:

a. type of material

☐ a sequence listing

☐ table(s) related to the sequence listing

b. format of material

☐ in written format

☐ in computer readable form

c. time of filing/furnishing

☐ contained in international application as filed.

☐ filed together with the international application in computer readable form.

☐ furnished subsequently to this Authority for the purposes of search.

3. ☐ In addition, in the case that more than one version or copy of a sequence listing and/or table relating thereto has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.

4. Additional comments:

**WRITTEN OPINION OF THE  
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**Box No. IV Lack of unity of invention**

1. ☒ In response to the invitation (Form PCT/ISA/206) to pay additional fees the applicant has:
- ☒ paid additional fees
  - ☐ paid additional fees under protest
  - ☐ not paid additional fees
2. ☐ This Authority found that the requirement of unity of invention is not complied with and chose not to invite the applicant to pay additional fees.
3. This Authority considers that the requirement of unity of invention in accordance with Rule 13.1, 13.2 and 13.3 is
- ☐ complied with
  - ☒ not complied with for the following reasons:  
See the lack of unity section of the International Search Report (Form PCT/ISA/210)

4. Consequently, this opinion has been established in respect of the following parts of the international application:

- ☒ all parts.
- ☐ the parts relating to claims Nos. \_\_\_\_\_

WRITTEN OPINION OF THE  
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International application No.  
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Box No. V Reasoned statement under Rule 43 *bis*.1(a)(I) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Claims <u>4-6, 13-16</u>	YES
	Claims <u>1-3, 7-8, 10-12, 23, 27-33</u>	NO
Inventive step (IS)	Claims <u>4-6, 13-16</u>	YES
	Claims <u>1-3, 7-12, 17-33</u>	NO
Industrial applicability (IA)	Claims <u>1-33</u>	YES
	Claims <u>NONE</u>	NO

2. Citations and explanations:

Please See Continuation Sheet

**WRITTEN OPINION OF THE  
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**Supplemental Box**

In case the space in any of the preceding boxes is not sufficient.

8. Claim 12 lacks novelty under PCT Article 33(2) as being anticipated by Dilliplane et al, US 5,940,089.  
Re claim 12, the technical features as claimed are fully disclosed by Dilliplane. (See col. 7, line 51-col. 8, line 13).
9. Claims 13-16 meet the criteria set out in PCT Article 33(2)-(4), because the prior art does not teach or fairly suggest the specific YUV format as claimed.
10. Claims 17-18 lack an inventive step under PCT Article 33(3) as being obvious over Boykin et al, US 2003/0079222.  
Re claims 17-18, Boykin discloses compressing audio and video input frames into chunks resulting in multiplexed AV stream having video and audio packets. Boykin also discloses providing padding data into the multiplexed AV stream for encryption purposes. (See para 0174-0179). Boykin does not disclose the padding data may be empty video data to isolate audio chunks. However, one skilled in the art would have found it obvious to modify Boykin by including empty video data to also play a part of the padding data for the benefit of separating video and audio data packets in the multiplexed AV stream.
11. Claims 19-22 lack an inventive step under PCT Article 33(3) as being obvious over Boykin et al, US 2003/0079222.  
Re claims 19-22, Boykin also discloses fast fixed-point implementation of MPEG-1 Layer 3 decoding wherein audio encoded data are represented by high, low and zero frequency components. (See para 0134-0143, fig. 9). The specific mathematical representation as claimed is not disclosed in detailed in Boykin. However, it would have been obvious that the algorithm disclosed in Boykin when expressed in mathematical representation would have exhibited similar syntax as claimed.
12. Claim 23 lacks novelty under PCT Article 33(2) as being anticipated by Yin, US 2004/0093208.  
Re claim 23, the technical features as claimed are fully disclosed by Yin. (See fig. 3, para 0015, 0056-0071).
13. Claims 24-26 lack an inventive step under PCT Article 33(3) as being obvious over Yin, US 2004/0093208.  
Yin discloses the algorithm to compute inverse modified discrete cosine transform as claimed. (See fig. 3, para 0015, 0056-0071). The specific mathematical representation as claimed is not disclosed in detailed in Yin. However, it would have been obvious that the algorithm disclosed in Yin when expressed in mathematical representation would have exhibited similar syntax as claimed.
14. Claim 27 lacks novelty under PCT Article 33(2) as being anticipated by Henn et al, US 2002/0118845.  
Re claim 27, the technical features as claimed are fully disclosed by Henn. (See fig. 7, para 0031-0033).
15. Claims 28-33 lack novelty under PCT Article 33(2) as being anticipated by Boykin et al, US 2003/0079222.  
Re claims 28-31, the technical features as claimed are fully disclosed by Boykin. (See figs. 34-36, para 0171-0174).  
Re claims 32-33, the technical features as claimed are fully disclosed by Boykin. (See figs. 43-48, para 0179-0196).